

ABSTRACT OF THE DISCLOSURE

A goniometric sensor (1) for measuring the relative rotation of two objects (20, 25) includes a flexible elongated element (2) whose respective ends are connected to the two objects (20, 25) and during whose bending the length variation ΔL is determined of one of the fibers (15) not located at the neutral axis (10). This length variation ΔL is directly proportional to the relative rotation (α) between the two bodies (20, 25) multiplied for the eccentricity (e) of the fiber (15) with respect to the neutral axis (10). Therefore, it is possible to determine easily the relative rotation (α) by knowing the length of rest L and the eccentricity (e) with respect to the neutral axis (10) and to measure the length variation ΔL of fiber (15), for example measuring the movement of an end of a cable located in a hole that contains fiber (15).